2. The torsional vibration damper of claim 1 wherein the polymer body further comprises an annular wall having a first annular surface, a second annular surface opposite the first annular surface, and a service port extending through the annular wall between the first and the second surfaces, the service port being positioned radially outward from the support flange.

3. The torsional vibration damper of claim 1 wherein the polymer body further comprises a first annular surface and a second annular surface opposite the first annular surface, and the support flange further comprises a seating surface that is substantially coextensive with one of the first and the second surfaces of the polymer body.

4. The torsional vibration damper of claim 3 wherein the seating surface is free of the polymer material forming the polymer body.

5. The torsional vibration damper of claim 3 wherein the seating surface is at least partially encapsulated in the polymer material forming the polymer body.

6. The torsional vibration damper of claim 1 wherein the polymer is a glass reinforced polyamide.

7. The torsional vibration damper of claim 1 wherein the polymer is mechanically stable at a temperature of at least about 230°F.

~~8. The torsional vibration damper of claim 1 wherein the structurally rigid material is a metal.~~

~~9. The torsional vibration damper of claim 1 wherein the annular inertia ring including a circumferential flange that extends radially inward into the elastomeric layer.~~

10. ~~A torsional vibration damper for a rotatable shaft comprising~~:

an annular inertia ring;

an elastomeric layer disposed radially inward from the inertia ring;

a polymer body disposed radially inward from the elastomeric layer; and

an insert disposed radially inward from the polymer body, the insert formed of a structurally rigid material and mountable to the rotatable shaft, the insert including a plurality of support flanges projecting radially outward into the polymer body, adjacent ones of the plurality of support flanges having an angular spacing about a circumference of the insert, wherein an axial force applied to at least some of the plurality of support flanges is preferentially transferred to the insert such that ~~the polymer body remains substantially stress-free.~~

11. ~~The torsional vibration damper of claim 10 wherein the polymer body~~ further comprises an annular wall having a first annular surface, a second annular surface opposite the first annular surface, and a plurality of service ports extending through the annular wall between the first and the second surfaces, the plurality of service ports being angularly spaced about a circumference of the annular wall such that each of the plurality of support flanges is aligned radially with one of the plurality of service ports

12. The torsional vibration damper of claim 10 wherein the polymer body further comprises a first annular surface and a second annular surface opposite the first annular surface, and each of the plurality of support flanges further comprises a seating surface that is substantially coextensive with one of the first and the second surfaces of the polymer body.

13. The torsional vibration damper of claim 12 wherein the seating surface of each of the plurality of support flanges is free of the polymer material forming the polymer body.

14. The torsional vibration damper of claim 12 wherein the seating surface of each of the plurality of support flanges is at least partially encapsulated in the ~~polymer material forming the polymer body.~~

15. ~~The torsional vibration damper of claim 10 wherein the polymer is a glass~~ reinforced polyamide.

16. The torsional vibration damper of claim 10 wherein the polymer is mechanically stable at a temperature of at least about 230°F.

17. The torsional vibration damper of claim 10 wherein the structurally-rigid material is a metal.

18. The torsional vibration damper of claim 10 wherein the annular inertia ring including a circumferential flange that extends radially inward into the elastomeric layer.

19. ~~A torsional vibration damper comprising:~~

an annular inertia ring;

an elastomeric layer disposed radially inward from the inertia ring;

a polymer body disposed radially inward from the elastomeric layer; and

a insert positioned radially inward of the polymer body and formed of a structurally rigid material, the insert having a plurality of protrusions that extend radially outward into the polymer body, the protrusions providing torque-locking structure that mechanically interlocks the polymer body with the insert so that the ~~polymer body resists rotation relative to the insert.~~

~~20. The torsional vibration damper of claim 19 wherein the structurally rigid~~ material is a metal and the protrusions are integrally formed with the insert.

21. The torsional vibration damper of claim 20 wherein the plurality of protrusions are substantially cylindrical bosses.

22. The torsional vibration damper of claim 20 wherein the plurality of protrusions are substantially rectangular tabs.

23. The torsional vibration damper of claim 20 wherein the insert has a first longitudinal axis and the plurality of protrusions are splines, each of the splines having a second longitudinal axis aligned generally parallel to the first longitudinal axis.

24. ~~A torsional vibration damper comprising:~~

an annular inertia ring;

an elastomeric layer disposed radially inward from the inertia ring;

a polymer body disposed radially inward from the elastomeric layer and having an inner peripheral surface, the polymer body being formed of a polyamide composite having a reinforcing filler of a relatively rigid material; and

a insert disposed radially inward from the polymer body, the insert being formed of a first relatively rigid material and having an outer peripheral surface ~~being generally coextensive with the inner~~ peripheral surface of ~~the polymer body~~.

~~25. The torsional vibration damper of claim 24 wherein the reinforcing filler is a~~ relatively rigid material selected from the group consisting of glasses, ceramics, and carbons.

26. The torsional vibration damper of claim 24 wherein the polyamide composite is based on a nylon copolymer.

27. The torsional vibration damper of claim 26 wherein the polyamide composite includes a plurality of glass fibers.

28. The torsional vibration damper of claim 25 wherein the polyamide composite does not experience significant degradation in mechanical properties when exposed to an environment in which the ambient temperature is at least about 230°F.

29. The torsional vibration damper of claim 25 wherein the first structurally ~~rigid material is a metal~~.